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## ABSTRACT

Peer ratings on two semi-independent samples of peer-rejected elementary school boys and girls were analyzed to determine whether internalizing and externalizing subgroups could be identified statistically. Positive and negative nominations were obtained in classrooms from several hundred children across a period of two years. Each year rejected children were identified by using the Coie, Dodge, and Copotelli (1982) procedures, resulting in samples of 70 and 108 rejected children for the 2 years. In both samples, the two subgroups emerged from the cluster analyses. A third subgroup, previously unidentified and not well described by the variables measured, was present in both samples and was labeled the low problem group. These children were better accepted and less rejected than the internalizing and externalizing children. The internalizing subgroups consisted mainly of girls, while the externalizing subgroups were composed primarily of boys. Children in both subgroups were highly likely to remain rejected 1 year later and showed a tendency to remain within their own subgroup. The low problem rejected children tended not to remain rejected after 1 year. (RH)

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## Internalizing and Externalizing Subgroups of Peer-Rejected Children

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### ABSTRACT

Recent research has reflected a growing interest in internalizing and externalizing subgroups of peer-rejected children. In this study, peer ratings on two semi-independent samples of peer-rejected elementary school boys and girls were analyzed using cluster analyses to determine whether internalizing and externalizing subgroups could be identified statistically. In both samples, the two subgroups emerged from the cluster analyses. A third subgroup, not well described by the variables measured, was present in both samples and was labelled the low problem group. The internalizing subgroups consisted mainly of girls, while the externalizing subgroups were composed primarily of boys. Children in both subgroups were highly likely to remain rejected one year later, and showed a tendency to remain within their own subgroup. The low problem rejected children tended to not remain rejected after one year, and were better accepted on peer sociometrics than were children from the other two groups.

## GOALS

Recent research has identified the presence of distinct subgroups of peer-rejected children (e.g., French, 1988, 1990). While aggressive-rejected children have consistently been identified, there is also evidence to suggest that some rejected children may exhibit a profile of internalizing problems -- withdrawal, anxiety and sadness (see Coie, Dodge, & Kupersmidt, 1990). The purposes of the present study were:

1. to explore the possibility that both externalizing and internalizing subgroups exist within a sample of peer-rejected elementary school boys and girls.
2. to examine the stability of these subgroups.

## METHOD

Classroom sociometrics (positive and negative nominations) were administered to two samples of elementary school boys and girls: in Year 1, 514 children in grades 3-6; in Year 2, the majority of the Year 1 sample plus new subjects for a total of 841 children in grades 4-6. Each year, rejected children were identified using the Coie, Dodge, and Copotelli (1982) procedures, resulting in samples of 70 and 108 for the two years. Of the Year 1 rejected children in grades 3-5 (n=51), 38 (75%) were followed into Year 2.

## PEER RATINGS

Peer ratings were obtained in classrooms for the total sample each year. Ten peer rating items were taken or adapted from the Pupil Evaluation Inventory (Pekarik, Prinz, Liebert, Weintraub, & Neale, 1976), and depicted internalizing (I), externalizing (E), and prosocial (P) characteristics:

THOSE WHO ARE TALLER THAN MOST (PRACTICE ITEM)  
THOSE WHO WORRY A LOT (I)  
THOSE WHO HELP OTHERS (P)  
THOSE WHO AREN'T NOTICED MUCH (I)  
THOSE WHO ACT LIKE A BABY (E)  
THOSE WHO ARE GOOD LOOKING (P)  
THOSE WHO SAY THEY CAN BEAT EVERYBODY UP (E)

THOSE WHO ARE UNHAPPY OR SAD (I)  
THOSE WHO ARE OUT OF THEIR SEAT A LOT (E)  
THOSE WHO ARE SMART IN SCHOOL (P)

## RESULTS

### IDENTIFICATION OF SUBGROUPS

Hierarchical agglomerative cluster analysis using Wards method was used on the nine peer rating item scores (standardized within grade across the total sample) to identify subgroups. Separate analyses were conducted for Years 1 and 2. For both samples, three cluster solutions were specified by the cubic clustering criterion. MANOVAs comparing the three subgroups on the nine items were significant, Wilks' Lambda yielding  $F(18,118)=10.93$  and  $F(18,194)=17.16$ , for Years 1 and 2 respectively, both  $p<.0001$ . Significant ANOVAs were followed up with Duncan's Multiple Range Tests comparing pairs of subgroups.

In the Year 1 sample, an internalizing subgroup ( $n=13$ ) showed significant ( $p<.05$ ) elevations on anxiety, withdrawal, sadness, immaturity, and disruptiveness (Figure 1). An externalizing subgroup ( $n=34$ ) was high on aggression and disruptiveness. A third subgroup ( $n=23$ ) was not well described by most of the items, showing a significant elevation only on the withdrawal item (and a moderate level of sadness), and was labelled the low problem subgroup.

In the Year 2 sample, an internalizing subgroup ( $n=39$ ) was elevated on anxiety, withdrawal, immaturity, and sadness, relative to the other two subgroups (Figure 2). An externalizing subgroup ( $n=46$ ) was high on aggression, disruptiveness, immaturity, and anxiety. A low problem subgroup ( $n=23$ ) showed an elevation only on academic success.

### STABILITY OF SUBGROUPS

Of the children who were classified as rejected in Year 1, 69% of the externalizers, 83% of the internalizers, and 25% of the low problem children

remained rejected in Year 2. Percentages for remaining within the same subgroup were 55% for externalizers, 60% for internalizers, and 25% for the low problem group. No clear pattern was evident for those children who did not remain within their subgroup.

#### DESCRIPTION OF SUBGROUPS

For both samples, the externalizing group consisted mainly of boys (74% in Year 1, 82% in Year 2) while the internalizing group consisted mostly of girls (54% in Year 1, 64% in Year 2). The low problem group differed in its gender composition across the two samples, with 64% girls in Year 1 and 23% girls in Year 2.

To explore the possibility of differences in level of peer acceptance and rejection among the three subgroups the groups were compared on positive and negative nominations and play ratings. In both samples, the low problem group was rated higher on acceptance (play ratings) and lower on rejection (negative nominations) than one or both of the problem subgroups (Table 1). There were no significant differences among the groups on positive nominations.

#### CONCLUSIONS

1. Internalizing and externalizing subgroups appear to exist within the larger group of peer-rejected elementary children. The internalizing subgroup is more likely to be composed of girls, while the externalizing subgroup consists mainly of boys.
2. Both internalizing and externalizing rejected children are highly likely to remain rejected one year later. There is a tendency for children to remain within their own rejected subgroup.
3. A low problem group of rejected children, not well described by the variables measured in this study, was identified. These children are better accepted and less rejected than the internalizing and externalizing children, and are much less likely to remain rejected one year later.

4. The elevation of an externalizing characteristic (disruptiveness) in Year 1 internalizing children and of an internalizing characteristic (anxiety) in Year 2 externalizing children suggests that a comorbid group may exist.

#### DISCUSSION

The findings of the present study support the work of other researchers who have studied the peer relations of internalizing and externalizing elementary age children (e.g., Hymel, Rubin, Rowden, & LeMare, 1990). The gender composition of the subgroups -- internalizers tended to be girls and externalizers tended to be boys -- is consistent with existing research in child psychopathology (Achenbach & Edelbrock, 1981). Although groups of children who were primarily internalizing or externalizing were identified, there was some overlap of characteristics in each sample, suggesting the existence of a comorbid group. For example, previous investigators have identified aggressive-withdrawn children (Ledingham, 1981) and rejected hyperactive-withdrawn boys (Pope, Bierman, & Mumma, in press). Further research needs to be directed at more clearly specifying behavioral subtypes of rejected children, perhaps in conjunction with other aspects of their social functioning such as social skill level and social cognitive styles.

The emergence of a low problem rejected group was unexpected, and little light is shed on the difficulties of these children through the present investigation. The findings that they were somewhat better accepted and were less likely to remain rejected a year later may indicate that these children are disliked due to temporary situational factors. Or, it may be that their interpersonal interactions are more subtly aversive, yielding less widespread and less intense peer dislike. We need to know more about this previously unidentified group of rejected children.

FIGURE 1. SUBGROUPS OF REJECTED CHILDREN - YEAR 1

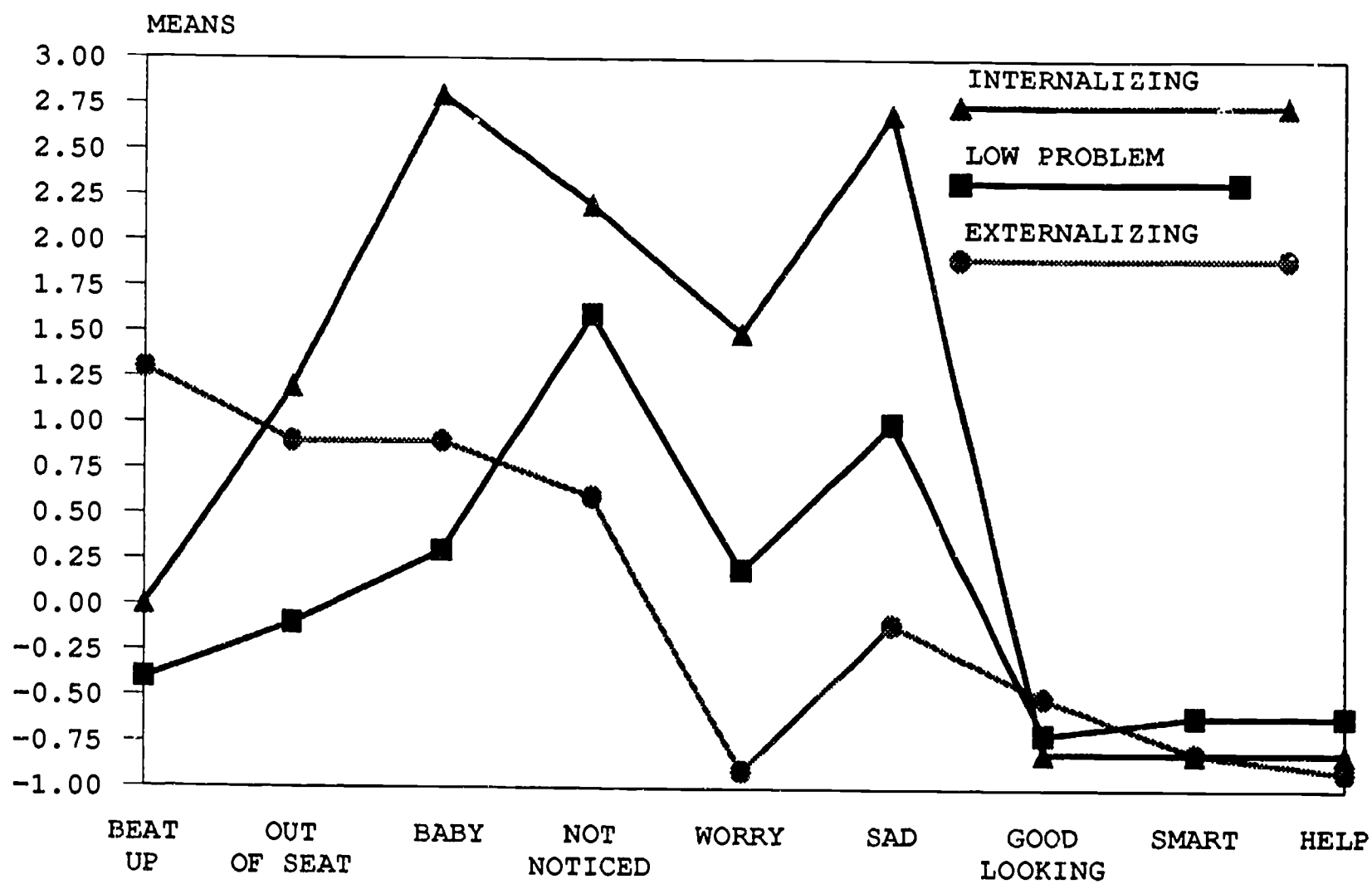




FIGURE 2. SUBGROUPS OF REJECTED CHILDREN - YEAR 2

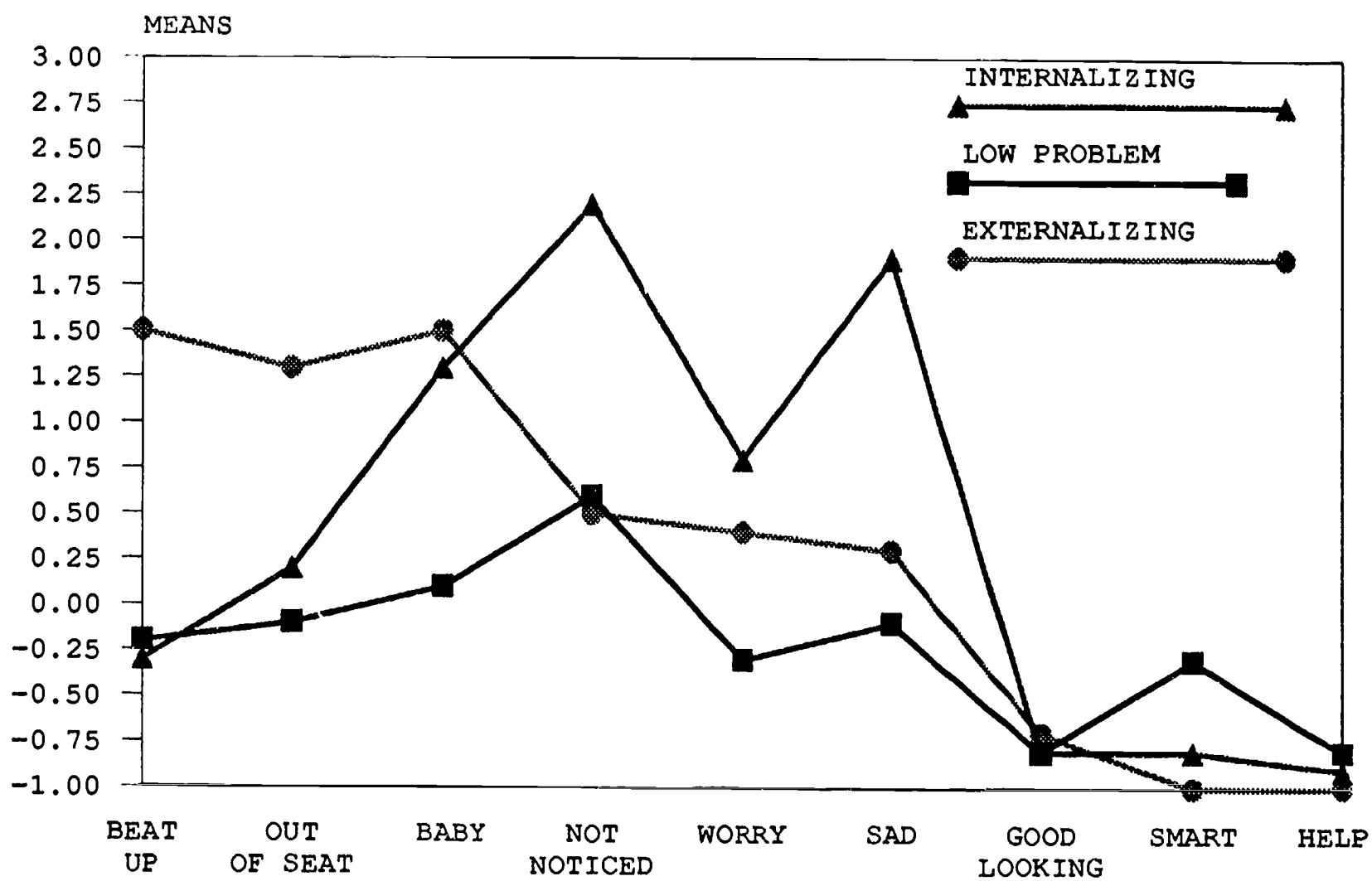


TABLE 1. COMPARISON OF SUBGROUPS ON SOCIOMETRIC RATINGS

SUBGROUPS - YEAR 1				
	INTERNALIZING	EXTERNALIZING	LOW PROBLEM	F
POSITIVE NOMINATIONS	-0.97 (0.39)	-1.07 (0.38)	-1.11 (0.27)	N.S.
NEGATIVE NOMINATIONS	2.32 <sup>a</sup> (1.08)	1.77 <sup>a, b</sup> (0.95)	1.19 <sup>b</sup> (0.76)	6.54**
PLAY RATINGS	-1.70 <sup>b</sup> (0.40)	-1.26 <sup>a</sup> (0.75)	-0.99 <sup>a</sup> (0.63)	4.84*
SUBGROUPS - YEAR 2				
	INTERNALIZING	EXTERNALIZING	LOW PROBLEM	F
POSITIVE NOMINATIONS	-1.06 (0.35)	-1.00 (0.36)	-0.93 (0.32)	N.S.
NEGATIVE NOMINATIONS	1.98 <sup>a</sup> (1.08)	1.88 <sup>a</sup> (0.96)	1.21 <sup>b</sup> (0.72)	5.11*
PLAY RATINGS	-1.53 <sup>b</sup> (0.51)	-1.42 <sup>b</sup> (0.66)	-1.10 <sup>a</sup> (0.49)	4.07*

NOTE. SCORES REPRESENT MEAN STANDARD SCORES; STANDARD DEVIATIONS ARE PRESENTED IN PARENTHESES. DIFFERENT SUPERSCRIPTS INDICATE SIGNIFICANT DIFFERENCES BETWEEN GROUPS BASED UPON DUNCAN'S MULTIPLE RANGE TESTS ( $P < .05$ ).

\* $P < .05$ . \*\* $P < .005$ .

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